Application No.: 10/520,686

Response to Office Action of August 4, 2005

Attorney Docket: NOTAR-018US

Amendments to the Specification:

Please amend the paragraph beginning at page 1, ln 14 as follows:

Hence, for some time the tendency is that of reducing the plant and business costs by casting products with thickness as close as possible to that of the final product; consequently, following the introduction of continuous slab casting, the thickness of the latter is reduced form the conventional [[200÷300]] 200-300 mm to 60-100 mm obtained in the so-called "think slab casting". However, even the passage from 60 mm to [[2÷3]] 2-3 mm, which is the typical thickness of a hot strip,[[)]] requires a series of energetically taxing steps.

Please amend the paragraph beginning at page 3, ln. 18 as follows:

Such problems are solved according to claim 1 by support device on a assembly of a first and a second cooled casting rolls with a pair of plates abutted on each end of said pair of rolls, working as a an ingot mould for continuous metal strip casting, said first and second rolls having parallel axes and each of them being supported by at least one movable support element near to the axial ends, said movable support elements being suitable for allowing a mutual movement of approaching and distancing of said rolls of said pair, each movable support element associated with the first roll being connected to said assembly by means of its respective hydraulic actuator suitable for thrusting said first roll in the direction of said second roll and suitable for thrusting each support element against an abutting end element, each movable support element associated with the second roll being connected to said assembly by a magnetostrictive actuator and a load cell actuation means, wherein said actuation means-are suitable for making said second roll perform movements of mutual approaching and distancing from said first roll, wherein a bar of the magnetostrictive actuator is provided with a preloading system and that between each movable support element and said assembly there is provided at least one respective hydraulic bearing is provided suitable for allowing sliding movement of each of said movable support elements with respect to said assembly.

Application No.: 10/520,686

Response to Office Action of August 4, 2005

Attorney Docket: NOTAR-018US

Please amend the paragraph beginning at page 4, ln. 18 as follows:

According to the a further aspect of the present invention, such problems are solved according to claim 7 by a method for controlling and adjusting the axial distance of the casting rolls for a continuous metallic strip casting implemented with the device of claim 1 comprising the following stages:

- (a) operating said hydraulic actuator to make a first roll approach in the direction of the second roll until at least one respective movable support element associated with the first roll is in close contact against an abutting end element.
- (b) providing control and adjustment means suitable for emitting control signals to a magnetostrictive actuator the actuation means depending on the signals received relevant to suitable process parameters;
- (c) operating the <u>magnetostrictive actuator</u> actuator actuation means to apply a force onto the movable supports associated with the second roll in the direction of a mutual approaching to or of a distancing from the first roll by sliding on at least a respective hydraulic bearing depending on the intensity variation of the roll separation force, so that the minimum gap between the rolls is kept constant.

Please amend the paragraph beginning at page 5, ln. 30 as follows:

The roll support device 11, 11' according to the present invention is shown in detail, by way of a non-limiting example of the scope and object of the invention in Figures 2 and 3 in a possible embodiment thereof.

Please amend the paragraph beginning at page 7, ln. 4 as follows:

Such actuators offer optimal characteristics of use, among which there is the hihgh frequency good response in addition to the short reaction time and the high force applicable. For example, one of the magnetostrictive alloys presents an optimal frequency interval of [$[0\div5]$] 0-5 kHz, furthermore a bar in such material, 10 cm long, can elongate of more than 0,1 mm in 50 μ s and a bar with a diameter of 30 mm can bear a force of 2 tons.